




|  |                        |                     |  |
|--|------------------------|---------------------|--|
| <b>Issue Classification</b><br> | <b>Application No.</b> | <b>Applicant(s)</b> |  |
|  | 09/170,042             | HASTINGS ET AL.     |  |
|  | <b>Examiner</b>        | <b>Art Unit</b>     |  |
|  | Robert C. Hayes, Ph.D. | 1647                |  |

| ISSUE CLASSIFICATION  |   |          |   |        |   |                                   |     |     |     |                             |                            |
|---|---|----------|---|--------|---|-----------------------------------|-----|-----|-----|-----------------------------|----------------------------|
| ORIGINAL  |   |          |   |        | CROSS REFERENCE(S)  |                                   |     |     |     |                             |                            |
| CLASS   |   | SUBCLASS |   |        | CLASS   | SUBCLASS (ONE SUBCLASS PER BLOCK) |     |     |     |                             |                            |
| 530   |   | 350      |   |        | 530   | 324                               | 325 | 326 | 327 |                             |                            |
| INTERNATIONAL CLASSIFICATION  |   |          |   |        | 424   | 185.1                             |     |     |     |                             |                            |
| C   | 0 | 7        | K | 14/435 |   |                                   |     |     |     |                             |                            |
| C   | 0 | 7        | K | 14/00  |   |                                   |     |     |     |                             |                            |
| C   | 0 | 7        | K | 7/08   |   |                                   |     |     |     |                             |                            |
|   |   |          |   | /      |   |                                   |     |     |     |                             |                            |
|   |   |          |   | /      |   |                                   |     |     |     |                             |                            |
| Robert C. Hayes 11/26/03<br>(Assistant Examiner) (Date)   |   |          |   |        | <br><b>GARY KUNZ</b><br><b>SUPERVISORY PATENT EXAMINER</b><br><b>TECHNOLOGY CENTER 1600</b><br>(Patent Examiner) (Date) |                                   |     |     |     | Total Claims Allowed: 14    |                            |
|  12/1/03<br>(Patent Examiner) (Date) |   |          |   |        |   |                                   |     |     |     | O.G.<br>Print Claim(s)<br>1 | O.G.<br>Print Fig.<br>none |

|   |          |       |          |       |          |       |          |       |          |                              |          |                               |          |                                 |          |
|---|----------|-------|----------|-------|----------|-------|----------|-------|----------|------------------------------|----------|-------------------------------|----------|---------------------------------|----------|
| <input checked="" type="checkbox"/> Claims renumbered in the same order as presented by applicant |          |       |          |       |          |       |          |       |          | <input type="checkbox"/> CPA |          | <input type="checkbox"/> T.D. |          | <input type="checkbox"/> R.1.47 |          |
| Final   | Original | Final | Original | Final | Original | Final | Original | Final | Original | Final                        | Original | Final                         | Original | Final                           | Original |
|   | 1        |       | 4        | 31    |          | 61    |          | 91    |          | 121                          |          | 151                           |          | 181                             |          |
|   | 2        |       | 5        | 32    |          | 62    |          | 92    |          | 122                          |          | 152                           |          | 182                             |          |
|   | 3        |       | 6        | 33    |          | 63    |          | 93    |          | 123                          |          | 153                           |          | 183                             |          |
|   | 4        |       | 7        | 34    |          | 64    |          | 94    |          | 124                          |          | 154                           |          | 184                             |          |
|   | 5        |       | 8        | 35    |          | 65    |          | 95    |          | 125                          |          | 155                           |          | 185                             |          |
|   | 6        |       |          | 36    |          | 66    |          | 96    |          | 126                          |          | 156                           |          | 186                             |          |
|   | 7        |       |          | 37    |          | 67    |          | 97    |          | 127                          |          | 157                           |          | 187                             |          |
|   | 8        |       |          | 38    | 9        | 68    |          | 98    |          | 128                          |          | 158                           |          | 188                             |          |
|   | 9        |       |          | 39    | 10       | 69    |          | 99    |          | 129                          |          | 159                           |          | 189                             |          |
|   | 10       |       |          | 40    | 11       | 70    |          | 100   |          | 130                          |          | 160                           |          | 190                             |          |
|   | 11       |       |          | 41    | 12       | 71    |          | 101   |          | 131                          |          | 161                           |          | 191                             |          |
|   | 12       |       |          | 42    | 13       | 72    |          | 102   |          | 132                          |          | 162                           |          | 192                             |          |
|   | 13       |       |          | 43    | 14       | 73    |          | 103   |          | 133                          |          | 163                           |          | 193                             |          |
|   | 14       |       |          | 44    |          | 74    |          | 104   |          | 134                          |          | 164                           |          | 194                             |          |
|   | 15       |       |          | 45    |          | 75    |          | 105   |          | 135                          |          | 165                           |          | 195                             |          |
|   | 16       |       |          | 46    |          | 76    |          | 106   |          | 136                          |          | 166                           |          | 196                             |          |
|   | 17       |       |          | 47    |          | 77    |          | 107   |          | 137                          |          | 167                           |          | 197                             |          |
|   | 18       |       |          | 48    |          | 78    |          | 108   |          | 138                          |          | 168                           |          | 198                             |          |
|   | 19       |       |          | 49    |          | 79    |          | 109   |          | 139                          |          | 169                           |          | 199                             |          |
|   | 20       |       |          | 50    |          | 80    |          | 110   |          | 140                          |          | 170                           |          | 200                             |          |
|   | 21       |       |          | 51    |          | 81    |          | 111   |          | 141                          |          | 171                           |          | 201                             |          |
|   | 22       |       |          | 52    |          | 82    |          | 112   |          | 142                          |          | 172                           |          | 202                             |          |
|   | 23       |       |          | 53    |          | 83    |          | 113   |          | 143                          |          | 173                           |          | 203                             |          |
|   | 24       |       |          | 54    |          | 84    |          | 114   |          | 144                          |          | 174                           |          | 204                             |          |
|   | 25       |       |          | 55    |          | 85    |          | 115   |          | 145                          |          | 175                           |          | 205                             |          |
|   | 26       |       |          | 56    |          | 86    |          | 116   |          | 146                          |          | 176                           |          | 206                             |          |
|   | 27       |       |          | 57    |          | 87    |          | 117   |          | 147                          |          | 177                           |          | 207                             |          |
| 1   | 28       |       |          | 58    |          | 88    |          | 118   |          | 148                          |          | 178                           |          | 208                             |          |
| 2   | 29       |       |          | 59    |          | 89    |          | 119   |          | 149                          |          | 179                           |          | 209                             |          |
| 3   | 30       |       |          | 60    |          | 90    |          | 120   |          | 150                          |          | 180                           |          | 210                             |          |

4-614 U.S. PTO  
09/17/02  
10/13/96

|                      |       |     |          |
|----------------------|-------|-----|----------|
| 530                  | Class | 350 | Subclass |
| ISSUE CLASSIFICATION |       |     |          |

PATENT NUMBER

# U.S. UTILITY PATENT APPLICATION

O.I.P.E. *285M* *TRC*  
SCANNED *Q.A.*

PATENT DATE

|        |                           |                           |                             |                      |
|--------|---------------------------|---------------------------|-----------------------------|----------------------|
| SECTOR | CLASS                     | SUBCLASS                  | ART UNIT                    | EXAMINER             |
|        | <del>530</del> <i>435</i> | <del>350</del> <i>391</i> | <del>1614</del> <i>1647</i> | <i>HAYES, ROBERT</i> |

FILED WITH: ☐ DISK (CRF) ☐ FICHE  
(Attached in pocket on right inside flap)

*Hayes*  
*435/069.1*

## PREPARED AND APPROVED FOR ISSUE

| ISSUING CLASSIFICATION       |               |                    |                                   |            |            |            |  |
|------------------------------|---------------|--------------------|-----------------------------------|------------|------------|------------|--|
| ORIGINAL                     |               | CROSS REFERENCE(S) |                                   |            |            |            |  |
| CLASS                        | SUBCLASS      | CLASS              | SUBCLASS (ONE SUBCLASS PER BLOCK) |            |            |            |  |
| <i>530</i>                   | <i>350</i>    | <i>530</i>         | <i>324</i>                        | <i>325</i> | <i>326</i> | <i>327</i> |  |
| INTERNATIONAL CLASSIFICATION |               | <i>H24</i>         | <i>15.1</i>                       |            |            |            |  |
| <i>C07K</i>                  | <i>14/00</i>  |                    |                                   |            |            |            |  |
| <i>C07K</i>                  | <i>7/08</i>   |                    |                                   |            |            |            |  |
| <i>C07K</i>                  | <i>14/435</i> |                    |                                   |            |            |            |  |
|                              |               |                    |                                   |            |            |            |  |
|                              |               |                    |                                   |            |            |            |  |

☐ Continued on Issue Slip Inside File Jacket

|   |   |                         |                           |  |                                  |
|---|---|-------------------------|---------------------------|--|----------------------------------|
| <input type="checkbox"/> <b>TERMINAL DISCLAIMER</b>   | <b>DRAWINGS</b>   |                         |                           | <b>CLAIMS ALLOWED</b>                                |                                  |
|   | Sheets Drwg.<br><i>4</i>  | Figs. Drwg.<br><i>4</i> | Print Fig.<br><i>NONE</i> | Total Claims<br><i>14</i>                            | Print Claim for O.G.<br><i>1</i> |
| <input type="checkbox"/> a) The term of this patent subsequent to _____ (date) has been disclaimed.<br><br><input type="checkbox"/> b) The term of this patent shall not extend beyond the expiration date of U.S. Patent No. _____ | <i>Robert C. Hayes</i> <i>11/26/03</i><br>(Assistant Examiner) (Date) |                         |                           | <b>NOTICE OF ALLOWANCE MAILED</b><br><br>            |                                  |
|   | _____<br>(Primary Examiner) (Date)                                    |                         |                           | <b>ISSUE FEE</b><br>Amount Due _____ Date Paid _____ |                                  |
| <input type="checkbox"/> c) The terminal _____ months of this patent have been disclaimed.  | _____<br>(Legal Instruments Examiner) (Date)                          |                         |                           | <b>ISSUE BATCH NUMBER</b><br><br>                    |                                  |

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(LABEL AREA)

(FACE)